

Work Order ID 152012

Tuesday, October 18, 2016 10:51:48 AM

152012

Page 1

Item ID: D4640-15

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Ceiling Protector

Start Date: 10/18/2016 Start Qty: 4.00

4

Cust Item ID:

Required Date: 10/21/2016 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals:

Process Plan:

DAS
21
9-89

Date:

OCT 18 2016

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D4640

D

100

0.00

100

Waterjet

Memo

0.21

FLOW CNC Waterjet

***Confirm if parts are trimmed or untrimmed prior to cutting ***

Cut as per dwg

Prog Rev: **P**Dwg Rev: **P**

Deburr as required

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Memo

0.01

Quality Control

PR 10/10/20**4****4****PR 10/10/20**

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐						
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval				
Description Work Order Deviation			Disposition					
						Completed By		
						Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval					
Root Cause		FAULT CATEGORY						
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____								

Work Order ID 152012

Tuesday, October 18, 2016 10:51:48 AM

152012

Page 2

Item ID: D4640-15 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Ceiling Protector
Start Date: 10/18/2016 Start Qty: 4.00 ***4*** Cust Item ID:
Required Date: 10/21/2016 Req'd Qty: 4.00 ***4*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC8- Inspect parts - second check Memo USE TEMPLATE TO MARK HOLE LOCATIONS WITH A FINE POINT MARKER ON TEXTURED SIDE	0.00 0.01				<u>4</u>			DAS 38 9-89 OCT 26 2016
130 *130* Packaging Packaging	Identify as per dwg & Stock Location: _____ Memo	0.00 0.01		152007					OCT 26 2016 DAS 6 9-89
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.07							DAS 21 9-89 OCT 27 2016
									DAS 21 9-89 OCT 26 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

Tuesday, October 18, 2016 10:51:47 AM

Page 1

Work Order ID: 152012

152012

Parent Item: D4640-15

D4640-15

Parent Item Name: Ceiling Protector

Start Date: 10/18/2016

Required Date: 10/21/2016

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP REV:A 12.05.08 NEW ISSUE DD VERF:EC
12.10.17 AS PER REV.B VERF:JLM

IPP REV:B

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MLEXS.093-F6006-07		Purchased		No		100	sf	1,620.766	16	67.36842			

MI FXS 093-F6006-07

GE PLASTICS LEXAN SHEET (LIGHT GREY)

PR 10/10/20

Location

Loc Qty

Loc Code

MAT023

69.56

m129738

69.56

therm

1551.2066

m135322

580.54

m135517

970.6666

69.2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

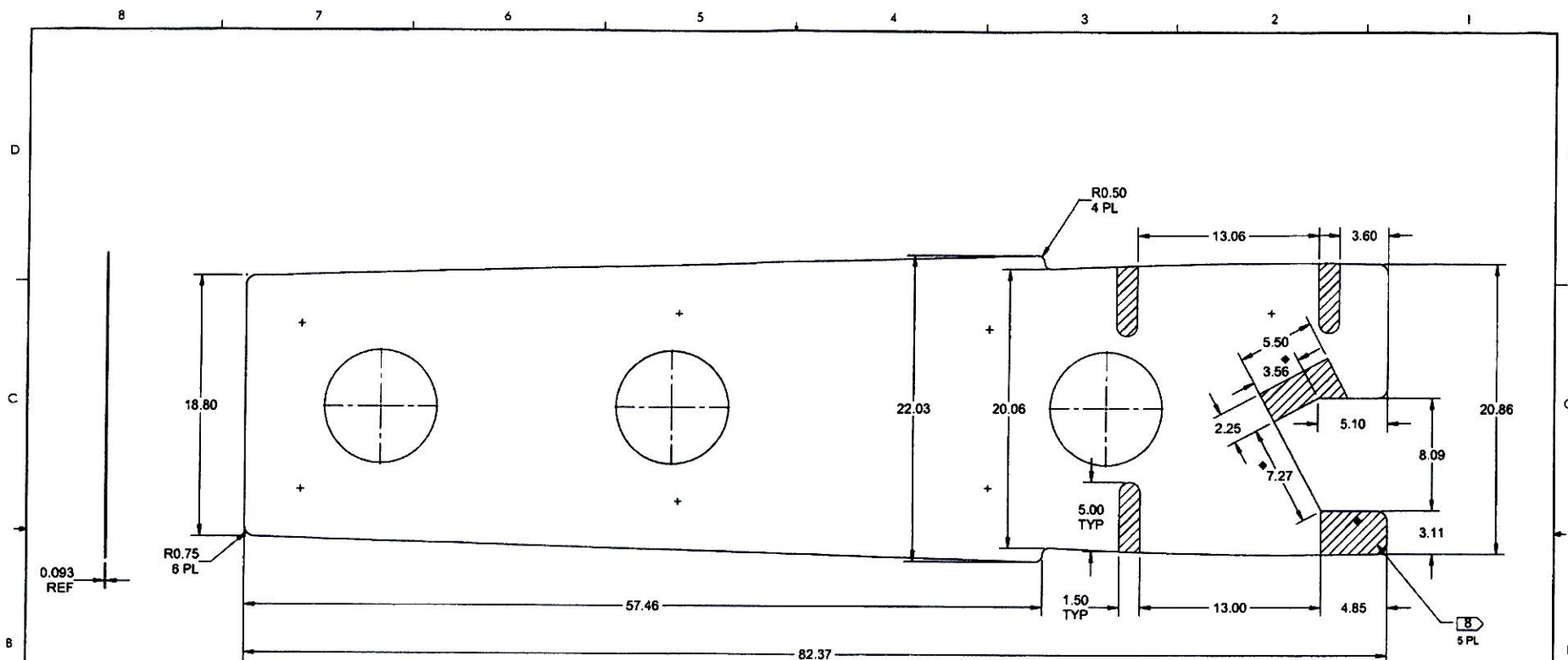
DART AEROSPACE LTD		Work Order:	152012
Description: Ceiling Protector		Part Number:	D4640-15
Inspection Dwg: D4640 Rev: D		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
18.80	+/-0.030	18.80	✓		RaPe	
22.03	+/-0.030	22.03	✓		D.02	
20.06	+/-0.030	20.06	✓			
13.06	+/-0.030	—				
3.60	+/-0.030	—				
8.09	+/-0.030	8.102	✓			
20.86	+/-0.030	20.86	✓			
3.11	+/-0.030	3.124	✓			
7.27	+/-0.030	7.27	✓			
5.10	+/-0.030	5.10	✓			
4.85	+/-0.030	4.85	✓			
13.06	+/-0.030	—				
1.50	+/-0.030	—				
5.00	+/-0.030	—				
57.46	+/-0.030	57.46	✓			
82.37	+/-0.030	82.37	✓			
Ø8.13	+0.012/-0.001	8.131	✓			
6.77	+/-0.030	—				
5.72	+/-0.030	—				
6.13	+/-0.030	—				
2.21	+/-0.030	2.21	✓			
0.88	+/-0.030	—				
7.78	+/-0.030	7.776	✓			
7.47	+/-0.030	7.468	✓			
Ø0.375	+0.006/-0.001	0.380	✓			
9.73	+/-0.030	9.737	✓			
21.00	+/-0.030	21.00	✓			
31.28	+/-0.030	31.28	✓			
4.00	+/-0.030	—				
27.23	+/-0.030	—				
22.28	+/-0.030	—				
20.36	+/-0.030	—				
0.093	+/-0.010	0.097	✓			

Measured by: PR	Audited by: 38 9-88	Preliminary Approval:
Date: 16/10/20	Date: OCT 26 2016	Date:

Rev	Date	Change	Revised by	Approved
A	12.09.26	New Issue	KJ	
B	13.02.27	Dwg Rev updated	KJ	



D4640-15 CEILING PROTECTOR
TEXTURED SIDE SHOWN

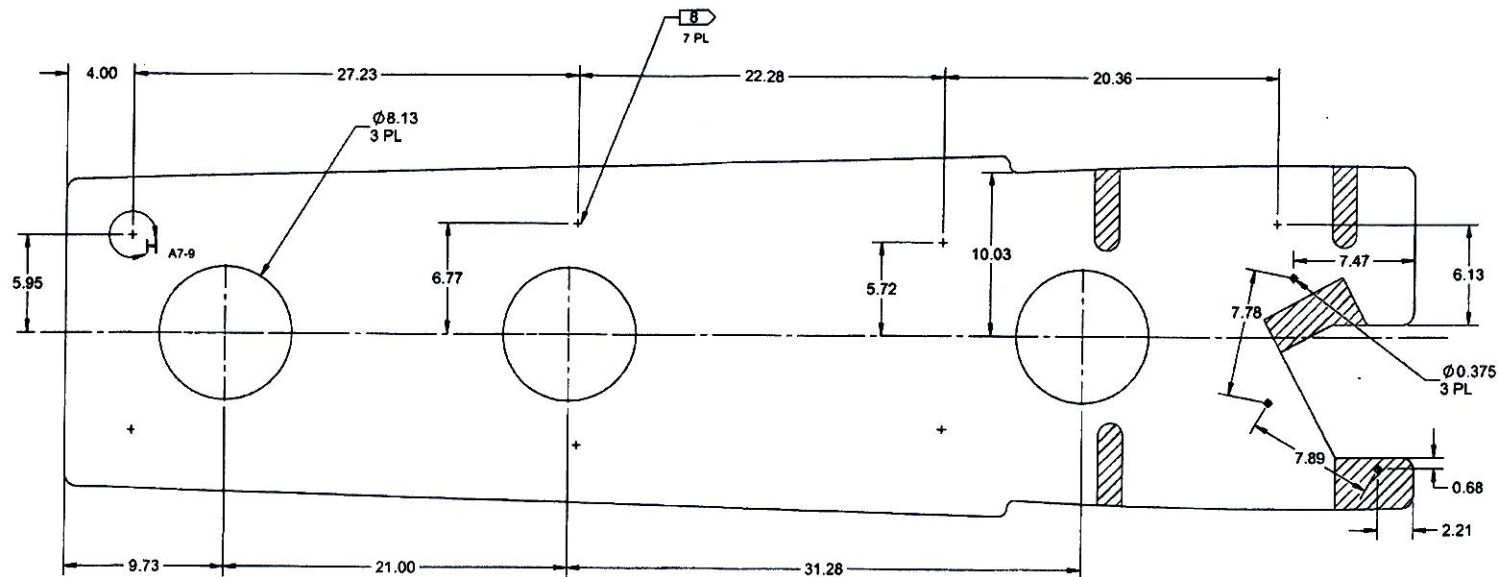
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 152012MLS
16-10-18

RELEASED
2013-01-10

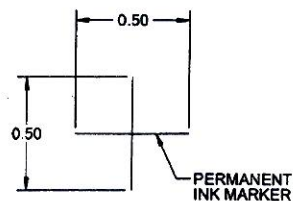
NOTES:

- 1) MATERIAL: F6006-GY5B133 GRAY LEXAN SHEET (SUEDE/POLISHED) 0.093 THICK
REF DART SPEC MLEXS.093-F6006-07
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1 ON SMOOTH SIDE
- 7) WEIGHT: 5.99 lbs (TRIMMED WEIGHT = 5.78 lbs)
- 8) IF CUSTOMER REQUESTS "TRIMMED KIT" ON PURCHASE ORDER:
 - DRAW 0.50" CROSS ON TEXTURED SIDE AT INDICATED LOCATIONS USING PERMANENT INK MARKER
 - TRIM AND REMOVE SHADED AREAS

DESIGN	XDF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	JP	DRAWING NO.	REV. D
CHECKED	JP	D4640	SHEET 8 OF 9
MFG. APPR.	JP	TITLE	SCALE
APPROVED	JP	BAGGAGE PROTECTOR	NTS
DE APPR.	JP	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR REPRODUCED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DATE	12.12.18		



**D4640-15 CEILING PROTECTOR
SUPPLEMENTAL VIEW**



DETAIL H C7-9
NOT TO SCALE
TRIMMED KIT ONLY

RELEASED
2013-01-10

DESIGN	XDF	DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO. D4640	REV. D
MFG. APPR.		SHEET 9 OF 9	
APPROVED		TITLE	SCALE
DE APPR.		BAGGAGE PROTECTOR	
DATE	12.12.18	NTS	
COPYRIGHT © 2013 BY DART AEROSPACE LTD			
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			